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EXAMINER

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 27 recites the limitation "the signal" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 1-6, and 8-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over **lizuka JP 2000-236375** in view of **Kleinschmidt et al 6,085,112 (hereinafter Kleinschmidt)**.

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4. Regarding **claim 1**, lizuka discloses an information communication terminal (cell phone unit 100, see fig. 1, page 4, [0029]) comprising: image display means for displaying images (see fig. 1, page 4, [0030]); image projection means (projection section 103, see fig. 1, page 4, [0029]) for projecting images onto an external projection screen (projecting images from cell phone unit 100 to wall 302 and 601, and palm 501, and see figs. 4-6, page 4, [0031], page 5, [0047], [0051]); and control means for controlling the image projection means (CPU 110, see fig. 1, page 4, [0038], page 5, [0042]) in response to processing of communication information (see abstract on page 1, page 3, [0006], page 5, [0050]-[0052], page 6, [0053]-[0054]); data memory means for memorizing data of dedicated images for projection (memory section 109, see page 4, [0030], [0038]); wherein the control means controls the image projection means to read out data of a dedicated image for projection from the data memory means when projecting images, and project the dedicated image for projection in response to processing of communication information (see abstract on page 1, page 3, [0006], see page 4, [0037]-[0038], page 5, [0042]).

lizuka does not specifically disclose dedicated images for projection which are different from images displayed by the image display means, and wherein the dedicated image projected onto the external projection screen in response to the processing of the communication information is independent of the images displayed by the image display means in response to the processing of the communication information.

In the same field of endeavor, Kleinschmidt discloses dedicated images for projection (image I is obtained from the communication device K which is integrated with image display device BAV3, BAV4, or BAV5, see figs. 1-5, col. 5, lines 41-49, col. 6, lines 28-43, and lines 64-67) which are different from images displayed by the image display means (dialing numbers on communication device K for display on a numerical display ZD, see figs. 1 and 3, col. 4, lines 1-4), and wherein the dedicated image projected onto the external projection screen is independent of the images displayed by the image display means in response to the processing of the communication information (projecting a virtual image I, the projection based on the activation of the BAV3, BAV4, or BAV5, in for use, and wherein the display of images BAV3, BAV4, or BAV5 are not associated with displaying dialed numerical information in the numerical display ZD, see figs. 1-5, col. 5, lines 41-49, col. 6, lines 28-43, and lines 64-67).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Kleinschmidt, by displaying an image on a display on a phone and projecting an image from a phone, wherein the displayed and projected images are different, into the system of Iizuka for the benefit of displaying an image from an image display device that is integrated with a mobile communication device.

Regarding **claim 14**, Iizuka discloses an information communication terminal, comprising: a display that displays first images (see fig. 1, page 4, [0030]); an image projector that projects second images (projection section 103, see fig. 1, page 4, [0029]); a controller coupled to the image projector that controls projection of the second

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images in response to processing of communication information (CPU 110, see fig. 1, abstract on page 1, page 3, [0006], page 4, [0037]-[0038], page 5, [0042], [0050]-[0052], and page 6, [0053]-[0054]); and a memory that stores data of the second images (memory section 109, see page 4, [0030], [0038]), wherein the controller reads the data of the second images from the memory, and controls the image projector to project at least one of the second images in response to the processing of the communication information (see abstract on page 1, page 3, [0006], page 5, [0050]-[0052], page 6, [0053]-[0054]).

lizuka does not specifically disclose wherein the at least one of the second images projected in response to the processing of the communication information is independent of the first images displayed by the display in response to the processing of the communication information.

In the same field of endeavor, Kleinschmidt discloses an information communication terminal (see fig. 3, col. 5, lines 41-46), comprising: a display that displays first images (dialing numbers on communication device K for display on a numerical display ZD, see figs. 1 and 3, col. 4, lines 1-4); and an image projector that projects second images (projection section 103, see fig. 1, page 4, [0029]), and wherein the at least one of the second images projected is independent of the first images displayed by the display in response to the processing of the communication information (projecting a virtual image I, the projection based on the activation of the BAV3, BAV4, or BAV5, in for use, and wherein the display of images BAV3, BAV4, or BAV5 are not

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associated with displaying dialed numerical information in the numerical display ZD, see figs. 1-5, col. 5, lines 41-49, col. 6, lines 28-43, and lines 64-67).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Kleinschmidt, by displaying an image on a display on a phone and projecting an image from a phone, wherein the displayed and projected images are different, into the system of Iizuka for the benefit of displaying an image from an image display device that is integrated with a mobile communication device.

Regarding **claim 27**, Iizuka discloses a method for information communication, comprising: processing communication information (see abstract on page 1, page 3, [0006], page 5, [0050]-[0052], page 6, [0053]-[0054]); displaying a first image on a display of an information communication terminal in response to processing of the communication information (see fig. 1, page 4, [0030]); obtaining a second image from a memory of the information communication terminal in response to the processing of the signal (see abstract on page 1, page 3, [0006], page 4, [0030], [0038]); projecting the second image (see abstract on page 1, page 3, [0006], page 5, [0050]-[0052], page 6, [0053]-[0054]).

Iizuka does not specifically disclose wherein the second image projected is independent of the first image displayed on the display in response to the processing of the communication information.

In the same field of endeavor, Kleinschmidt an information communication terminal (see fig. 3, col. 5, lines 41-46), comprising: a display that displays first images

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(dialing numbers on communication device K for display on a numerical display ZD, see figs. 1 and 3, col. 4, lines 1-4); and an image projector that projects second images (projection section 103, see fig. 1, page 4, [0029]), and discloses wherein the second image projected is independent of the first image displayed on the display in response to the processing of the communication information (projecting a virtual image I, the projection based on the activation of the BAV3, BAV4, or BAV5, in for use, and wherein the display of images BAV3, BAV4, or BAV5 are not associated with displaying dialed numerical information in the numerical display ZD, see figs. 1-5, col. 5, lines 41-49, col. 6, lines 28-43, and lines 64-67).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Kleinschmidt, by displaying an image on a display on a phone and projecting an image from a phone, wherein the displayed and projected images are different, into the system of Iizuka for the benefit of displaying an image from an image display device that is integrated with a mobile communication device.

Regarding **claim 2**, as applied to claim 1, Iizuka further discloses the information communication terminal further comprising information receiving means for receiving information via communication networks (radio communications department 106, see fig. 1, page 4, [0030], [0034]), wherein the control means (CPU 110, see fig. 1, page 4, [0038], page 5, [0042]), when the information is received by the information receiving means, controls the image projection means to project an incoming notification image dedicated to projection as the dedicated image for projection which

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can be set up independently from incoming notification images displayed by the image display means (displaying projection image data from the screen of a cell phone unit, see page 2, [0001], page 3, [0006], page 5, [0051]).

Regarding **claim 3**, as applied to claim 1, lizuka further discloses an information communication terminal according to claim 1, the information communication terminal further comprising: information receiving means for receiving information via a communication network (radio communications department 106, see fig. 1, page 4, [0030], [0034]); and sound output means for outputting sound (104, see fig. 1, page 4, [0030]), wherein the control means, when the information is received by the information receiving means, controls the sound output means to output incoming sound for image projection, which is different from normal incoming sound when the dedicated image for projection are not projected (see page 2, [0001], page 3, [0006], page 4, [0035], page 5, [0051]).

Regarding **claim 4**, as applied to claim 2, lizuka further discloses wherein the control means controls so that an operation of the image projection means is kept stopping during standby status for receiving the information, and an image projection is started by activating the image projection means when information is received by the image receiving means (projecting images from cell phone unit 100 to wall 302 and 601, and palm 501, and see figs. 4-6, page 4, [0031], page 5, [0047], [0051]).

Regarding **claim 5**, as applied to claim 1, lizuka further discloses wherein the data memory means stores multiple kinds of individual image data including displayable images with the image display means and the dedicated images

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for projection (memory section 109, see page 4, [0030], [0038]); and wherein the control means (CPU 110, see fig. 1, page 4, [0038], page 5, [0042]) controls the image projection means to combine multiple individual image data which are read out selectively from the data memory means, to generate data of dedicated images for projection as subjects to be projected, and to project the dedicated images for projection as subjects to be projected onto the external projection screen (projecting images from cell phone unit 100 to wall 302 and 601, and palm 501, and see figs. 4-6, page 4, [0031], page 5, [0047], [0051]).

Regarding **claim 6**, as applied to claim 1, Iizuka discloses the claimed invention except an information communication terminal according to claim 5, wherein each of the multiple kinds of individual images is projected while being allocated to multiple individual projection areas on the external projection screen. Kleinschmidt further discloses, in a mobile terminal (communication device k, see fig. 1, col. 3, lines 66-67) capable of projecting a displayed image (see fig. 3, col. 5, lines 61-65), wherein each of the multiple kinds of individual images is projected while being allocated to multiple individual projection areas on the external projection screen (see fig. 3, col. 5, lines 61-65).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the combination of Iizuka and Kleinschmidt by projecting a screen with multiple kinds of images from a mobile communication device for the benefit of providing a method of projecting multiple images.

Regarding **claim 8** as applied to claim 5, Iizuka as modified by Kleinschmidt discloses the claimed limitations. Kleinschmidt further discloses projection image designation means for users to designate each image to be combined with the dedicated image for projection as a subject to be projected, wherein the control means combines the data of multiple individual images designated by the projection image designation means and generates data of a dedicated image for projection as a subject to be projected (projecting a virtual image I, the projection based on the activation of the BAV3, BAV4, or BAV5, see figs. 1 and 3-5, col. 5, lines 41-49, col. 6, lines 28-43, and lines 64-67).

Regarding **claim 9** as applied to claim 1, Iizuka as modified by Kleinschmidt discloses the claimed limitations. Kleinschmidt further discloses light quantity designation means for designating the light quantity of the image projection means, wherein the control means controls the image projection means to obtain the light quantity designated by the light quantity designation means (projecting a virtual image I, the projection based on the activation of the BAV3, BAV4, or BAV5, see figs. 1 and 3-5, col. 5, lines 41-49, col. 6, lines 1-43, and lines 64-67).

Regarding **claim 10** as applied to claim 1, Iizuka as modified by Kleinschmidt discloses the claimed limitations. Kleinschmidt further discloses wherein the image projection means is configured with a projection optical system that projects images displayed on a display unit provided in the image display means to the external projection screen (projecting a virtual image I, the projection based on the activation of

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the BAV3, BAV4, or BAV5, see figs. 1 and 3-5, col. 5, lines 41-49, col. 6, lines 28-43, and lines 64-67).

Regarding **claim 11** as applied to claim 1, Iizuka as modified by Kleinschmidt discloses the claimed limitations. Kleinschmidt further discloses wherein the projection optical system projects an image on the image section by flipping horizontally, and wherein the control means controls the image display means to display images on the image section by flipping the normal image display horizontally (projecting a virtual image I, the projection based on the activation of the BAV3, BAV4, or BAV5, see figs. 1 and 3-5, col. 5, lines 41-49, col. 6, lines 1-28, and lines 64-67).

Regarding **claim 11** as applied to claim 1, Iizuka as modified by Kleinschmidt discloses the claimed limitations. Kleinschmidt further discloses light quantity designation means for designating light quantity of the image display means, wherein the control means controls the image display means to obtain the light quantity designated by the light quantity designation means when projecting images (see figs. 1 and 3-5, col. 5, lines 41-49, col. 6, lines 1-28, and lines 64-67).

Regarding **claim 13** as applied to claim 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 or 12, Iizuka as modified by Kleinschmidt discloses the claimed limitations. Iizuka further discloses, application execution control means for controlling an application program execution environment (see abstract on page 1, page 3, [0006], page 5, [0050]-[0052], page 6, [0053]-[0054]): wherein the control means controls to start image projection by activating the image projection means when an image projection instruction is received

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from the application execution control means (see abstract on page 1, page 3, [0006], page 5, [0050]-[0052], page 6, [0053]-[0054]).

Regarding **claims 15 and 28** as applied to claims 14 and 27, Iizuka further discloses wherein the information control terminal is a mobile phone (see page 1 of the specification, page 4, [0028]).

Regarding **claims 16 and 29** as applied to claims 15 and 27, Iizuka further discloses wherein the communication information comprises at least one of: an incoming call and incoming mail (see abstract on page 1, page 3, [0006]-[0008], page 5, [0050]-[0052], page 6, [0053]-[0054]).

Regarding **claims 17 and 30** as applied to claims 14 and 27, Iizuka further discloses a receiver that receives the communication information via communication networks (106, see drawing 1, page 4, [0028], [0030], [0034]), wherein the controller, when the communication information is received by the receiver, controls the image projector to project an incoming notification image as the at least one of the second images that is projected (see fig. 1, abstract on page 1, page 3, [0006], page 4, [0037]-[0038], page 5, [0042], [0050]-[0052], and page 6, [0053]-[0054]).

Regarding **claims 18 and 31** as applied to claim 14 and 27, Iizuka further discloses a receiver that receives information via a communication network (106, see drawing 1, page 4, [0028], [0030], [0034]); and a speaker (104, see drawing 1, page 4, [0028], [0030]), wherein the controller, when the information is received by the information receiving means, controls the speaker to output an incoming sound for image projection, wherein the incoming sound for image projection is different from an

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incoming sound when the at least one of the second images is not projected (see fig. 1, abstract on page 1, page 3, [0006], page 4, [0037]-[0038], page 5, [0042], [0050]-[0052], and page 6, [0053]-[0054]).

Regarding **claim 19** as applied to claim 14, lizuka further discloses wherein the controller operates the image projector in standby status, and activates the image projector when information is received by the receiver (see fig. 1, abstract on page 1, page 3, [0006], page 4, [0037]-[0038], page 5, [0042], [0050]-[0052], and page 6, [0053]-[0054]).

Regarding **claims 20 and 32** as applied to claims 19 and 27, lizuka as modified by Kleinschmidt disclose the claimed limitations. lizuka further discloses wherein the memory stores multiple kinds of image data including the first images for displaying on the display and the second images for projection (see page 4, [0030], [0038]).

Regarding **claims 21 and 33** as applied to claims 14 and 27, lizuka as modified by Kleinschmidt disclose the claimed limitations. Kleinschmidt further discloses wherein the image projector projects at least two of the second images (see fig. 3, col. 5, lines 41-56).

Regarding **claims 22 and 34** as applied to claims 14 and 27, lizuka as modified by Kleinschmidt disclose the claimed limitations. Kleinschmidt further discloses a user interface coupled to the controller that allows a user to designate the at least one of the second images that is projected (see figs. 1 and 3-5, col. 5, lines 41-49, col. 6, lines 1-28, and lines 64-67).

Regarding **claims 23 and 35** as applied to claims 14 and 27, lizuka as modified by Kleinschmidt disclose the claimed limitations. Kleinschmidt further discloses, wherein the controller controls at least one of: a brightness and color of the at least one of the second images that is projected (see figs. 1 and 3-5, col. 5, lines 41-49, col. 6, lines 1-28, and lines 64-67).

Regarding **claims 24 and 36** as applied to claims 14 and 27, lizuka as modified by Kleinschmidt disclose the claimed limitations. Kleinschmidt further discloses wherein the image projector includes a projection optical system that projects the first images displayed on the display (see figs. 1 and 3-5, col. 5, lines 41-49, col. 6, lines 1-28, and lines 64-67).

Regarding **claim 37** as applied to claim 27, lizuka as modified by Kleinschmidt disclose the claimed limitations. Kleinschmidt further discloses wherein projection of the second image is controlled in stand-by status until activated when information is received by the information communication terminal (see figs. 1 and 3-5, col. 5, lines 41-49, col. 6, lines 1-28, and lines 64-67).

Regarding **claims 25 and 38** as applied to claims 14 and 27, lizuka as modified by Kleinschmidt disclose the claimed limitations. Kleinschmidt further discloses a processor that controls an application program execution environment, wherein the controller activates the image projector when an image projection instruction is received from the processor.

Regarding **claims 26 and 39** as applied to claims 14 and 27, lizuka as modified by Kleinschmidt disclose the claimed limitations. lizuka further discloses wherein the

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image projector projects the image onto a projection screen (see page 4, [0031], page 5, [0044], [0047]).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over **lizuka JP 2000-236375** in view of **Kleinschmidt et al 6,085,112 (hereinafter Kleinschmidt)** as applied to claim 6 above, and further in view of **Reyes et al 20040204126 (hereinafter Reyes)**.

Regarding **claim 7**, as applied to claims 5, lizuka as modified by Kleinschmidt discloses the claimed limitations except wherein the image display means that has multiple display units; wherein multiple kinds of individual images to be projected together onto the external project screen are individual images which are different from each other and displayed on each display unit.

However, Reyes discloses an information communication terminal (see fig. 1A), the information communication terminal comprising the image display means that has multiple display units (see fig. 1A, p.2, [0034]); wherein multiple kinds of individual images to be projected together onto the external project screen are individual images which are different from each other and displayed on each display unit (see abstract, p.2, [0034]-[0035]).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Reyes, by incorporating a multiple screen display in a mobile terminal, into the system of lizuka as modified by Kleinschmidt for the benefit of displaying data or video independently or in a combined form.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUMIDE T. AJIBADE AKONAI whose telephone number is (571)272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA

/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617